

PIC/D-11/60  
26 January 1960

MEMORANDUM FOR: DPD - DD/P

ATTN:

25X1

SUBJECT: Relative Importance of Information as a Function of Angle  
from Nadir

REFERENCE: Memorandum to  PIC/D-181/59, dated 22 Dec. 1959

25X1

1. In clarification of referenced memorandum, it is probably useful to explain in greater detail what was stated in paragraph 4, the draft of the reference which listed numbers of targets in relation to the flight line by degree of angle. It would seem that a significant number of important targets were found or identified beyond  $50^\circ$  from the vertical. Statistically the results of our study present a false importance of the high oblique targets in the sense of exploitation. These targets were detectable as such only with the aid of collateral intelligence and were resolved only at the threshold of recognition. The character of the targets in this category were in general either high contrast large airfields or other unique geometric shape or the large city area type. Only the grossest detail could be described from the photographic image. While this information is important, it still requires that for any real intelligence readout, the targets identified from such distance and resolution be covered subsequently on the near vertical.

2. Planning for new systems should not be unduly influenced by the apparent, statistically valuable, recognition of high oblique targets. This is especially true when systems such as 117L will produce the same information on a large area basis. We will still need the sharp eye of the directed system at high resolution to produce the needed answers.

3. In summary, directed reconnaissance will produce good to superior intelligence when scanning up to  $45^\circ$  from the nadir. At angles between  $30^\circ$  and  $40^\circ$  from the nadir the resolution is less than good due to atmospheric haze, etc. Maximum distortions occur here due to perspective and the defilade because of the oblique angle. These preclude precise intelligence analysis.  $10^\circ$  to  $20^\circ$  from the nadir the definition and resolution hold good but the oblique angle requires careful handling and rectification before extensive analysis can be made; whereas less than  $10^\circ$  the definition and clarity and geometry is such that it yields intelligence data of the highest quality.

ARTHUR C. LUNDAHL

Director

Photographic Intelligence Center

Distribution: 0 & 1 - Addressee

1 - D/PIC subject file 1 - D/PIC chrono

(25 Jan 60)

25X1